December 2005 Update

Broderick Wood Products Superfund Site
Denver, Colorado
(5-Year Review Date: 1/18/01)

Highlights Since the 2001 5-Year Review

- Modifications to LTU Treatment rates.
- Additional pond added to LTU
- Water quality sampling deficiency addressed
- Flow monitoring devices calibrated
- Improved oversite by new PRP contractor
- Repair to fence, bioventing wells
- Remedy enhanced by numerous additional wells

Brief Site History: The 64-acre Broderick Wood Products site, in Adams County, Colorado is a former treatment plant that used creosote and pentachlorophenol (PCP) to treat wood products. In 1983 EPA detected PCP in soil and groundwater samples taken on and off the Broderick Wood Products property. It was placed on the National Priorities List in September 1984.

Cleanup Activities Completed: Construction completion for the site was achieved in 1996. The following cleanup activities were completed either by EPA or the Potentially Responsible Party (Broderick Investment Company):

- Removal of sludges from the two former impoundments to a reclamation facility 1993.
- Construction of a land-treatment unit (LTU) for contaminated soils 1994.
- Construction of a treatment plant for contaminated groundwater 1994 (modified 1996).
- Construction of a bioventing system to treat the subsurface area 1996.

Current Status: Current Operation & Maintenance activities conducted by BIC include operating the groundwater treatment plant, operating the LTU and monitoring groundwater.

Summary of Protectiveness: The remedy as designed currently protects human health and the environment because the offsite migration of shallow groundwater has been controlled with a cutoff trench and wall on the north boundary. A non-aqueous phase liquid recovery system, bioventing system and water treatment plant are all successfully operating.

While the remedial actions for the site are currently protective of human health and the environment, the detection of contaminants in the deep Denver Formation and the Arapahoe Formation, not addressed by the current remedy indicate that the remedy at the site may not be protective in the future.

Issues Impacting Protectiveness: Issues were noted during this five-year review of the site. The following table summarizes the status of the follow-up actions addressing these issues.

Broderick Wood Products Superfund Site
Five-Year Review 2005 Update Table
(Review Date: 1/18/01)

Issues	Recommendations/ Follow-up Actions	Follow-up Actions (Status/Due Date)	Status of Follow-up Actions 12/05	Responsible Party
1. Slow Land Treatment Unit treatment rates.	Evaluate and provide recommendations as to cause and resolution of past performance.	Modifications to treatment have subsequently been implemented. Projection for treatment completion is now late 2003.	Modifications to treatment have been implemented. Treatment of soils was completed Sept. 30, 2004.	Potentially Responsible Party (PRP)
2. Effectiveness of LTU storage pond.	Evaluate whether revised procedures for Package Water Treatment system results in improved LTU performance and verify that LTU soils are not being contaminated by storage of Package Water Treatment materials.	Evaluation completed in November 2002. The addition of pond was found to be an improvement to the operation of the LTU.	Evaluation completed in November 2002. The addition of pond was found to be an improvement to the operation of the LTU.	PRP
3. Deficiency in water quality sampling procedures and documentation	Procedures must follow requirements of sampling plan.	Deficiency satisfactorily addressed in April 2002.	Deficiency satisfactorily addressed in April 2002.	PRP
4. Inaccuracies of some flow monitoring devices	Calibrate flow monitoring devices and maintain proper calibration and operation	Deficiency satisfactorily addressed in April 2002.	Deficiency satisfactorily addressed in April 2002.	PRP
5. Need for increased sampling frequencies for some wells and poor data interpretation and presentation in O&M reports.	Develop more effective O&M reports with real time information from water quality data. Use revised O&M reports to modify sampling program.	Resolution to deficiency expected by the end of 2003.	It was agreed in March 2005 that no change in sampling frequencies was needed due to the addition of numerous wells to the monitoring system.	

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6. Lack of effective oversight by PRP of other onsite operations	Inspect other site users for compliance with health safety and environmental operations.	The onsite contractor that prompted H&S concerns is no longer operating on the property. The area of interest will be sampled late 2002.	The onsite contractor that prompted H&S concerns is no longer operating on the property. The area of interest was sampled September 2004.	PRP
7. Site fence deficiencies	Repair fence.	Fence repaired in Spring of 2001.	Fence repaired in Spring of 2001.	PRP
8. Bioventing well damage	Repair Bioventing wells for well until functioning	Wells were repaired in May of 2001	Wells were repaired in May of 2001.	PRP
9. No offsite Volatile Organic Compound (VOC) groundwater data.	Sample offsite VOCs for risk analysis.	Offsite wells will be sampled for VOCs in late 2002.	Offsite wells were sampled in October 2004 and September 2005. VOC levels were well below groundwater standards.	PRP
10. No water quality data for Fisher Ditch.	Sample Fisher Ditch for ARAR compliance	Fisher Ditch sampling will be conducted in late 2002.	Fisher Ditch water was sampled October 2004 and May 2005. Results showed negligible levels of contaminants.	PRP
11. Violation of Points of Compliance	Install additional monitoring wells and conduct additional monitoring to determine the extent of contamination and protectiveness of remedy.	Deficiency #5 will need to be thoroughly addressed before Deficiency #11 can be adequately addressed.	The remedy was significantly enhanced and numerous wells were added to the monitoring program by December 2004. Performance of the remedy and extent of contamination will continue to be checked via the monitoring program.	PRP
12. Incomplete information on offsite wells and well water use.	Conduct complete review of offsite well use and concurrent water sampling.	Resolution to deficiency expected by end of 2003.	Resolution achieved by September 2004.	PRP